

March 1951

# Soil Conservation

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# SOIL CONSERVATION •

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## WELLINGTON BRINK

Editor

Art Work by

W. HOWARD MARTIN

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**UNIFORM GRADES.**—Sam Firebaugh, Shrewsbury, Pa., farmer has learned in 10 years' experience with peas, beans, corn, and other crops that it pays to plant canning crops in contour strips.

Before he started to strip crop, Sam had the disheartening experience at harvest time of having to handle three different grades of peas from rows that ran up and down the grades. In the middle sections of these fields, where a fair amount of topsoil remained, the peas were just right for canneries. At the bottom of the slopes, where topsoil from upper sections had been carried, the crop was not quite ready. At the top section, where most of the topsoil had been washed and blown away, the peas were hard and dry.

When Firebaugh became a cooperator with the York County Soil Conservation District

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**FRONT COVER.**—Floyd Waldo owns this fine conservation farm in Winona County, Minn., and John Waldo operates it. Grain strips are seeded so that in the fall, strips are in new hay with intervening strips for corn. All year round these fields are protected. Photograph by Lathrop.

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# RED RYDER SAVES RUN-DOWN RANCH



**R**ED RYDER, the famous comic-strip creation of Fred Harman of Pagosa Springs, Colo., has become a soil conservationist. This latest adventure series was started in late November and will run for around 3 months, Harman reports.

In this nationally known strip, which Harman estimates has around 30 million readers of whom half are adults, Red Ryder goes to the aid of an eastern widow who has been inveigled by the villain into using her insurance money to buy a run-

down western ranch under false pretense. As the story develops, Red Ryder and his friends, Little Beaver, Susie Jo, the Duchess and others, help the widow restore the productivity of the ranch through the use of soil and water conservation practices.

Harman is a colorful western artist who always is on the lookout for a worthy cause that can be promoted through his comic-strip characters. He became interested in soil conservation last fall,



The famous cartoonist at his drawing board.



Fred Harman examining grass on his ranch near Pagosa Springs, Colo., with his famous horse, "Thunder," just beyond the fence.

when the judging team in the finals of the Denver Post-KLZ contest visited Pagosa Springs to inspect a winning farm in the preliminary judging. In the last 3 years \$2,500 in cash prizes have been awarded to the five Colorado soil conservation districts selected as most outstanding.

The judging team, made up of L. B. Casselman, president of the Colorado Association of Soil Conservation Districts; Allen F. Kinnison, acting assistant regional director of the Soil Conservation Service; and Charles Terrell, Colorado extension conservationist, met Harman and they began discussing the value of soil conservation.

The judges emphasized the importance of bringing the soil conservation message to the children as well as the general public. The idea was conceived of making Red Ryder a soil conservationist.

The famous artist then began a close study of the soil conservation program. He held numerous

conferences with Kenneth W. Chalmers, State conservationist for the Soil Conservation Service in Colorado; A. B. Chapman, district conservationist; and Arch McCabe, unit conservationist in the Pagosa Springs area. The final result was that Red Ryder was launched on his career as a soil conservationist, and Harman became so interested in the subject that he applied to the San Juan Soil Conservation District for assistance in planning a complete soil and water conservation program for his own ranch.

**CLUB ACTIVITY.**—Two hundred sportsmen's clubs in the Michigan United Conservation Clubs are asked to arrange soil conservation nights when their 60,000 members will hear talks by local Soil Conservation Service representatives, county agricultural agents, and State conservation department speakers. Members are asked to invite their farmer friends.



# IRRIGATION FOLLOWS A NEW COURSE IN MONTANA

By A. E. McCLYMONDS

**P**ERHAPS the third time was the charm. But the people concerned don't think so. They're pretty sure that a new way of doing things brought success. At any rate, irrigation water was turned into the canal early in 1950, and the Hysham bench in eastern Montana became an irrigated area.

Completion of this project stands as a monument to Montana's foresight in creating a Water Conservation Board with power to act and its cooperation with the people and also that of the Soil Conservation Service and the Treasure County Soil Conservation District.

This project was developed from scratch on paper before the first spadeful of earth was turned. The soil was examined and mapped to determine the land to be irrigated, the direction of irrigation was determined for each farm so that the irrigation water would be delivered at the right place, and the drainage system was planned.

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NOTE.—The author is regional director, Soil Conservation Service, Lincoln, Nebr.

This was an earnest effort to avoid the pitfalls that had been responsible for the old adage that "it takes three generations to make irrigation a success."

The Hysham Bench Project had been a dream for over 40 years. People came to and went from the area, and some of the old-timers stayed on. And the dream persisted. First proposal was in 1914 for formation of an irrigation district and floating of bonds for an irrigation supply system designed by Charles B. Taber. It was voted down. The second attempt came in 1919, with B. C. Lilles of Billings as engineer, but the proposed bond issue for this was defeated, too.

Like the present system, the first two proposals provided for pumping plants to take water from the Yellowstone River. In the essential details, the proposed canal system was like the one that was finally built. But those proposals started with the canal system; the one that succeeded started with the land to be irrigated, and a type of financing



Canal leading to main pumping plant.

that is possible only because of the existence of the Montana board.

Start of the present attempt came a little over 3 years ago when the farmers in the present irrigated area organized a Water Users Association, which applied to the State water conservation board to build the pump station and main canal system. When this was settled, they asked SCS for help in designing and constructing the lateral-ditch system and individual farm distribution system.

The reason for this line of action, according to Ray Kimball, then secretary of the association, was that these farmers had seen the type of help the Soil Conservation Service, aiding the district, had given through the development of farm conservation plans to cooperators who were irrigating. A few were near Hysham, others farther away. In fact, Kimball himself, a dairy farmer, was one of them. He was irrigating 120 acres with water pumped from the Yellowstone River, which serves another area but passes near his farm.

At the instigation of the district supervisors, the SCS marshalled enough forces in 1948 to make a complete soils survey of the area, a land-capability map, and a topographic map. With these maps available, the technicians working with the water board engineers plotted the proposed lateral and farm-irrigation system on paper and presented it to the association. The plan was accepted.

Most of the land in the area was found to fall in Classes II and III—well suited for the production of cultivated crops, but with slopes generally a little steep. Soils are good, with topsoil ranging from 12 to 16 inches thick. Except for one section of about 640 acres of heavy clay, they are generally rather light.

Little erosion has occurred, since this is an area of light precipitation, and wind erosion had been held under control. Natural drains were found to be well located for the disposal of irrigation waste water and, after some shaping, are being grassed.

Construction of supply canals and pumping stations was finished by the water board in 1949. Two stations were needed. One at the Yellowstone River, near Myers, lifts the water 58.6 feet to the lower canal. The other relifts the water approximately 42 feet to irrigate 2,000 acres. Thus, a total of 7,600 acres is served. The lower canal goes through the project. The upper, or "high line," skirts the upper edge, returning to the lower canal near the midpoint of its length.

Installation of the turn-outs to deliver the irrigation water to the farms was done precisely according to the plan as the canals were being completed. They are arranged so that each present farm has its own turn-out. Then last spring the irrigation district built the supply laterals and drop structures, as laid out by SCS. Special equipment was used to scoop out the places for the structures.

Preparation of the land, which is now progressing on the farms individually, is requiring light to moderate leveling operations. Heavy cuts needed to level land will be few.

Then the water was turned into the canals and irrigation of the Hysham bench got under way. Over one-third of the land under the project was irrigated in 1950; it is expected that two-thirds of the irrigable land will be watered by 1951. Diversification of farming enterprises has already begun, and irrigated crops were good.

"Even in 1950—first year under irrigation—we got good sugar beets and a fair wheat crop," reports Harold Zent, one of the Water Users Association directors, who, with his brother Herbert, farms quite an acreage and also is associated with his brother and father in Hysham's farm-implementation establishment.

"That's quite a difference from what the story would have been under dry farming. We would have had to raise small grain as usual and would have had a small yield. As it was, we didn't have all our eggs in one basket, and we've only started to diversify."

Kimball reported that he was able to increase his irrigated acreage by 60 acres over the 20 he formerly irrigated.

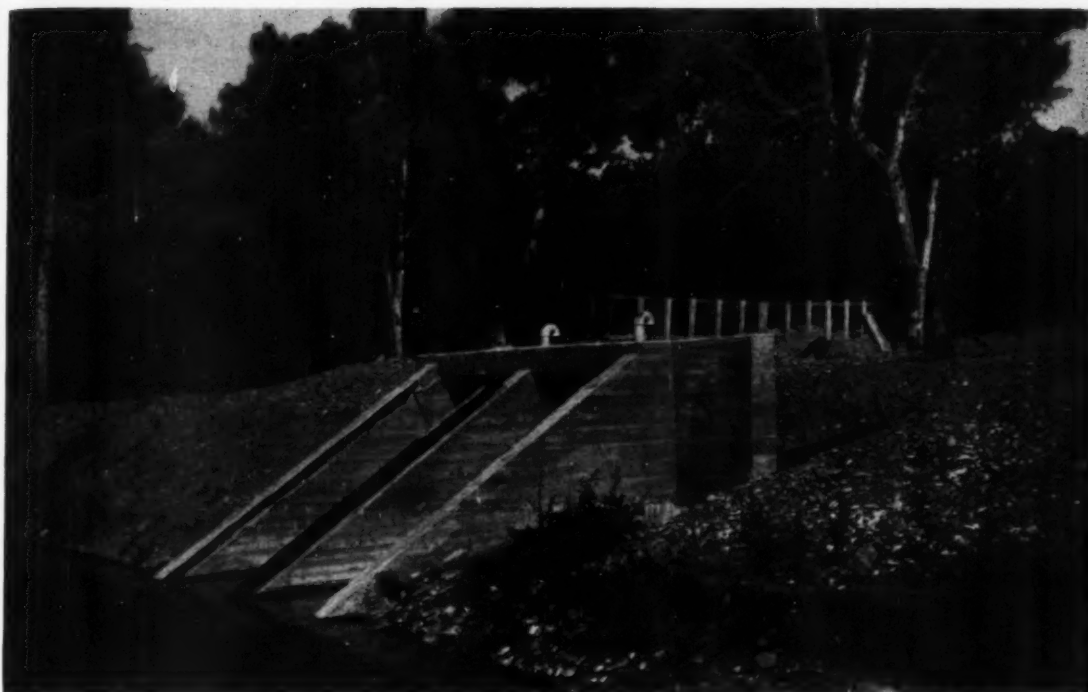
"Of course, some work has to be done on this land to put it in right shape for irrigation," he remarked, "but just getting water to it helped almost immeasurably."

His dry land is in crested wheatgrass, which is "wonderful pasture for a few weeks in spring but not much good after that." He is concentrating largely on irrigated pasture for his dairy cows. His records show, he said, that his present irrigated pasture produces a return of \$75 or more per acre.

Costs of construction of canals, laterals, structures, and pump house, and purchasing and installing the pumps averaged about \$36 per acre.

Added to these initial costs are those that the individual farmers will incur as they develop their

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Intake from Yellowstone River.

farm conservation plans in cooperation with the soil conservation district. A good deal of headway was made this year, with SCS men supplying technical services for land leveling and designing the correct farm irrigation systems, along with planning other needed conservation measures.

Financing is interesting. Under an agreement with the water board, payments are being made out of production at the yearly rate of \$1.75 per acre on the cost of building canals and pumps, and an additional 25 cents per acre for building power lines to the pumps. There is no mortgage or other lien involved. Annual charges for operation and maintenance have been estimated at \$2.25 to \$2.75 per acre—in 1950 they were \$2.40. In order to protect its investment until construction charges are paid off, the water board has reserved the right to step in and take over operation of the canal set-up in case the association falls down on the job.

The present board of directors is made up of C. L. Wright, Harold Zent, L. M. Mead, Harry Mackley, and T. J. Robison, all living in or near Hysham. Lloyd Bergum of Hysham has succeeded Kimball as secretary.

Success of the Hysham Bench Irrigation Project is the result of much sober thought and investigation. The land in the area is all in established farms, and the owners had to decide whether they could assume the obligations inherent with the project development.

"It wasn't so easy to decide as one might think," Kimball observed. "All of us had seen some of the problems in other irrigated areas. Among these were the seepage that had occurred, the smallness of the fields that resulted from too many ditches being needed to distribute the water over a farm. We learned that often it had taken 15 years or more for successful irrigation to be developed after the system had been built.

"We also saw results of the work of the Soil Conservation Service in helping farmers who had developed farm conservation plans in cooperation with soil conservation districts. By designing proper irrigation systems they made it possible for the farmers to use their water correctly, and many of the problems seemed to disappear.

(Continued on page 187)

# PROFITS FROM SOUTH JERSEY FARM WOOD LOTS

By ROY E. BALLARD

**S**ALEM County farmers in the South Jersey (N. J.) Soil Conservation District have found a new way to increase current income from wood lots while developing a main crop of saw timber for future harvesting. They use cooperative wood-lot management and selective cutting developed by the district, the Soil Conservation Service, the State Department of Conservation and Economic Development, and the Rutgers University extension service.

This wood-lot program is based on education by the extension service and work with the farmer in his wood lot by SCS and the Department of Conservation.

NOTE.—The author is Salem County work unit leader for Soil Conservation Service, working with the South Jersey Soil Conservation District, at Salem, N. J.

Purchase of pulpwood by contractors gives the program additional impetus. Trees to be removed for pulpwood are marked by Glenn E. Smith, SCS forester, and Department of Conservation field men. In selecting trees to be removed, they are guided by the crown relationships of the dominant species that are to be retained for full development. Almost all suppressed and intermediate crown trees are removed. Some of the co-dominant, and a few of the dominant crowns, also go. Trunks on growth to be removed are marked with paint sprayed from a small hand gun.

Spacing for the trees that are retained for growth is determined by the use of a special formula:  $X \text{ equals } \sqrt{\frac{43560}{N}} - D$ , where  $D$  equals



Joseph Harasta wood lot before improvement cutting.

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The same wood lot later on.

average diameter and N equals the number of trees per acre of dominant and co-dominant species. (It works like this: After cutting is completed, count the number of remaining trees per acre; determine average diameter of remaining trees at breast height—4½ feet; calculate square feet per tree by dividing 43,560 (number of square feet per acre) by number of trees per acre; convert to linear feet by extracting square root; subtract the average diameter of trees and you have the distance between trees). By using this formula it is found that hardwoods do best when they are spaced approximately at D plus 12 feet, and softwoods develop best when spaced at approximately D plus 8 feet.

What selective cutting means in promoting maximum tree growth is demonstrated in the photographs taken at Joseph Harasta's Lower Alloways Creek Township farm.

Kiyomi Nakamura, Pittsgrove Township farmer, near Elmer, is one of the first farmers to profit through this program. From 12 acres, mainly in pine, he sold 96 cords of pulpwood. It weighed 2 tons per cord and brought 70 cents per ton—an extra income of \$11.20 for each acre harvested. On

this farm, as an additional improvement practice, prescribed and carefully controlled burning was done immediately before the cutting for two purposes: (1) It fire-proofed the wood lot by reducing the amount of litter on the ground, and (2) it promoted the regeneration of pine seedlings by creating a more favorable mineral seedbed.

At the Jessie L. Colson farm, near Yorktown in Alloway Township, 60 acres of hardwoods were marked and sold under the same procedure. These woods netted 420 cords, an average of 7 cords per acre. The hardwoods weighed 2 1/7 tons per cord. Because of greater distance to market, than from the Nakamura farm, return to the farmer was 60 cents per ton, or \$9 per acre.

H. G. Pedrick, Jr., an Alloway Township farmer near Yorktown, reaped a \$9 per acre income from selective pulpwood cuttings on 72 acres that netted 504 cords. This crop weighed 2 1/7 tons per cord and sold for 60 cents per ton.

By removing growth suitable for pulpwood, Salem County farmers are laying the ground work for a more profitable harvest of dominant trees.

# THEY HAVE A WAY WITH THE LAND

By CAL ROARK



Looking across an excellent pasture of orchardgrass and Ladino clover to the J. L. Kanagy home. The pasture carries a cow to the acre and still provides one cutting of hay each year.

**A**MISH farmers are noted for good farming, especially for their ability to make the land respond to careful treatment. I found no exception in J. L. Kanagy, of Stuart's Draft, in Augusta County, Va.

His 116-acre farm in the beautiful Shenandoah Valley is the kind of place that makes a city man, and most farmers, turn green with envy. It is nestled between the Blue Ridge and the Appalachian Mountains in a valley of rolling, red-brown soils. Kanagy, his 18-year-old son Ben, his 11-year-old daughter Salina, and his wife find it impossible to keep a farm long without its undergoing a transformation.

Kanagy was the first Amish farmer in Augusta County to enlist the aid of O. J. Zeigler, Soil Conservation Service technician assigned to the Shenandoah Valley Soil Conservation District. That was in 1944 after his family moved from Mifflin County, Pa., to an erosion-whipped 140-acre farm 4 miles south of their present place. Now, 24 of the 46 Amish families of Augusta County are cooperating with the district in applying complete soil and water conservation plans.

NOTE.—The author is information and editorial specialist, Soil Conservation Service, Spartanburg, S. C.

Jo Kanagy's first year in Virginia stumped him. That's when he learned what dry weather can do to crops on badly eroded land. Barley made 10 bushels to the acre, corn only 8. (Average yield, with a normal season, ran about 25 bushels of corn and 8 or 10 bushels of wheat.) "That land was so poor I didn't know what to do with it," he told me. "There were big gullies and lots of washing. Highway people were always having to haul dirt off the road that ran in front of the farm."

Kanagy sold that farm after 3 years; about one-fifth went for residential development and the remainder to his tenant, John A. Yoder. During the 3 years Kanagy owned the farm, he choked the gullies, stopped washing to where only clear or milky water ever reached the highway, boosted corn yields from 25 to 60 bushels and wheat from 10 to 30.

"The land wouldn't grow alfalfa at first, but in 3 years it was making as good a crop as could be found on any farm around here," he said. "And John Yoder is still keeping the land on the mend. He follows a district conservation plan to the letter."

Kanagy's formula for doctoring the 140-acre farm was simple but amazingly effective. He con-

tinued to use a 3-year rotation of corn, small grain, and clover with which he was familiar. He confined crops to the best-lying land on the place. Even so, sharply rolling land was the best available. SCS technicians laid out contour strips so that row crops would alternate with small grain and clover the same year in the same field.

"Having the rows on the level made a world of difference," the Amish farmer told me. "I wouldn't believe it until I saw for myself. We had to put about three-fourths of the farm in pasture and alfalfa because it was so steep or rough. This brought the land back faster than anything else. And then after we stopped the land from washing, we could afford to use fertilizer. It wouldn't wash away, you know. Each spring alfalfa and pasture got 500 pounds of 2-12-6."

As you might guess, the Kanagy family saved the barnyard manure. They added a half sack of phosphate to each load and spread it where it was needed most.

Jo Kanagy's present farm is much better than his first. The deep, rich land has gentle slopes and is rated Class I, II, and III—all suitable for rotation cropland with good treatment.

The Kanagys have made the farm productive by careful handling and heavy feeding. Ten acres of the 116 are in woods. A few acres are used for

buildings and ground. Even so, this family keeps an average of 30 milk cows, 25 heifers, 30 sheep, and 40 hogs. In addition, Mrs. Kanagy raises about 18,000 broilers each year in three batches.

Carrying capacity of the farm has just about doubled since they bought it. Last year, his pastures carried a cow to the acre and he still was able to mow once for hay. All 30 acres of permanent pasture are in orchardgrass and Ladino. "Not an acre of bluegrass on the place," he noted. He is the only livestock farmer in Augusta County who has no bluegrass pasture.

Kanagy has 18 acres of alfalfa now and expects to plant 8 more. First cutting goes for ensilage. The next three cuttings are mow-cured for hay. Kanagy was the first farmer in Augusta County to have both grass ensilage and mow-cured hay for his milk cows. Protein content of his ensilage increased from 1.5 percent with corn to 4 percent with grass. Protein content of alfalfa hay increased from 14 percent when field-cured to 18 and 20 percent when mow-cured. This amounted to a saving of 7,000 pounds of protein in feed for the milk cows.

Corn on his 4-acre patch made 121 bushels per acre in 1949. Most of his land will make 100 bushels an acre, I was told.

(Continued on page 188)



Typical of the well-ordered farm buildings. The windmill is no longer used.



Atkins views range land against background of rugged hills and fine artificial lake.

## DISTRICT PROFILE

ATKINS  
of  
OKLAHOMA

The grass on the Atkins ranch in the Oklahoma Panhandle is proof enough that "Red" understands the meaning of soil and water conservation.

By reseeding abandoned cropland and by good range conservation practices, this Oklahoma rancher has brought his 9,600-acre lay-out near Hardesty in the Texas County Soil Conservation District to its present high state of productivity.

As president of the Oklahoma Association of Soil Conservation Districts, A. P. Atkins (that's Red) is official host for the 1951 meeting of the National Association of Soil Conservation Districts, on February 20-22 in Oklahoma City.

Red was reared on a farm near El Dorado, Kans. He was fresh out of Kansas State College with a degree in agriculture, and a bride, in 1924 when he went to Oklahoma to take over the piece of land near Hardesty that his father owned.

He describes the land as a "rather run-down piece of property that masqueraded as a ranch." He adds, "Since it wasn't doing any good, my father was glad to turn it over to me."

He uses purebred Hereford bulls and high-grade cows in production of commercial Hereford cattle,

and has built his ranch up to its present 9,000 acres of fine grasses and 600 acres of cropland.

Red has been president of the Oklahoma association the past 3 years and has been secretary-treasurer of his soil conservation district since its organization in 1941.

He is one of the founding fathers of the National Association of Soil Conservation Districts, having been in on the ground floor of the organization of the association back in 1946.

Red is a charter member of the Oklahoma Farm Bureau, is a thirty-second degree Mason, Oklahoma Consistory, and he belongs to India Temple of the Shrine. He is past president of the Guymon, Okla., Lions Club and chairman of the Official Board of the Guymon Methodist Church.

The Atkinses have two children, a daughter, Mrs. Richard Walden, whose husband, a Kansas State College graduate, has now taken over the farming end of the Atkins ranch, and a son, Jim, an Oklahoma A.&M. College major in veterinary medicine.

The family now lives in Guymon but Red still actively manages the ranch. He travels widely in the official capacity of president of the Oklahoma districts association and spends a big portion of his time working in the interest of soil conservation.

**QUICK RETURNS.**—When a conservation farm plan was established at the Hadala farm face lifting near Adams, Mass., in August 1949, many farmers wondered when the owner would start to get returns. Now they know, for in 1950 he filled his silo and some temporary silos with roughage produced on the farm. Never before had he been able to do that. Massachusetts farmers saw this and other results when they returned to the farm for a "first anniversary" inspection.

## UNIFORM GRADES

(Continued from page 170)

and planted his canning crops in contour strips, he found that his troubles were over, because the top, middle, and bottom sections were in separate strips of uniform fertility. This made it easy to treat each section according to its needs and bring the three into uniform production. As a result, production from the contour strips runs about 75 percent top-grade peas. Importance of this is found in market prices. Top-grade peas bring three times the price of second-grade peas and nine times the price of third-grade peas.



# DISTRICT PROFILE

## FOWLER of PENNSYLVANIA



Harry K. Fowler. His stone house in background is 150 years old.

Outstanding contributions to better rural life and top-flight leadership in agriculture won for Harry K. Fowler, chairman of the Lehigh County (Pa.) Soil Conservation District, the 1950 "Page One" award of the Lehigh Valley Newspaper Guild.

In newsmen's parlance, a news story has to be very well written and very important to win a place on page one. Thus the guild's annual award for outstanding leadership in any walk of life has been set up to indicate to the public, as well as to the recipient, that working newspapermen are convinced he is a top performer.

The award, made at the guild's annual dinner, is based on a wide range of accomplishments, particularly Fowler's leadership in interesting Lehigh Valley farmers in soil conservation. Fowler, who farms 130 acres between Macungie and Alburtis, pioneered in soil conservation work in the Lehigh

Valley. Largely through his enthusiasm, the district was organized. He became its first chairman, a position he still holds.

Under Fowler's leadership, the district has become a model of cooperation. Nearly 250 farmers, with 20,000 acres, have applied complete conservation farm plans, and more than 100 others have applied for plans for more than 14,000 acres.

Harry Fowler's leadership carries special appeal to the conservation-conscious newsmen of the Lehigh Valley. The *Allentown Morning Call* and the *Allentown Evening Chronicle* have used their news and editorial columns freely to emphasize the need for more soil and water conservation and good land use. Many times this theme has been banner-headed in both newspapers by Percy Rhue and Charles W. Ettinger of the *Call*, and Nelson Weiser of the *Chronicle*.

Born in Milwaukee, Fowler entered the University of Wisconsin at a very young age. His intentions were to become a livestock farmer. City-born and city-reared, he interrupted his course to get some practical ranching experience in Colorado. From there he shifted to Denver's stockyards and then to a livestock-commission firm. Through these experiences he acquired needed background.

Delegated to take 22 carloads of cattle to Omaha, he left Denver when the cattle price was high. Two weeks later, when he arrived at Omaha with the consignment, the price had dropped so low that it would not pay off the mortgage that the owner had placed on the livestock. Then and there, Harry Fowler decided that the livestock business was not for him. Instead, he came east with his brother and they found jobs in the Allegheny orchards in West Virginia's Eastern Panhandle.

It was not the kind of farming that Harry wanted, so at the end of the season he headed north. Landing in Macungie, he met Dr. Herbert Fritsch, with whom he obtained employment that pointed the way to the kind of farming he sought.

His own desires and the advice of Dr. Fritsch sent him back to Wisconsin University to graduate with a major in agriculture. "It was the 3-year rotation system on the Fritsch farms that intrigued me," he says. Returning to the Fritsch farms for a short time, he took a year's work in economics at Cornell University.

Back to Lehigh County he came. Here he bought the 181-acre Schiffert place in lower Macungie,

(Continued on page 185)

# NEW IDEA FOR SAVING TOPSOIL

By HUGH F. EAMES

**V**ALUE of topsoil—70,000 cubic yards of this precious stuff—is demonstrated near Lancaster, Pa., where a highway contractor stripped it off 40 acres of a 67-acre farm, so he could remove 272,000 cubic yards of subsoil and use it for a highway fill.

Possibility of an important research study is set up because the contractor bought the 67 acres from Farmer Norman Stauffer with the stipulation by the farmer that the contractor will regrade the excavated field, restore and grade the topsoil and sell the land back to the farmer, if he wants to buy it and renew farming there. Otherwise, the topsoil

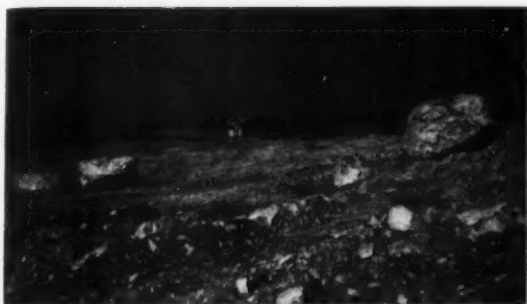
might never entirely go back to the fields, located only a few miles outside the city of Lancaster, and close to its airport. Enough might be restored to fit the 40 acres, less 2 acres taken for right-of-way, for a housing development. Remaining topsoil might then be sold for various uses. That's what is happening in a lot of big operations.

In removing the topsoil, the contractor, H. J. Williams Co., of York, Pa., rolled back an average depth of 1 foot like a rug, and piled it in three large heaps. In cutting out the subsoil, the big machines went as deep as 12 feet in some places, and to an average depth of 6 feet over the 40 acres. A dozen or more big boulders were uncovered. In over a third of the area the big machines cut down to the top of a limestone ledge. The boulders will be removed, if the fields are regraded. If the topsoil is

NOTE.—The author is head, regional current information section, Soil Conservation Service, Upper Darby, Pa.



Piles of topsoil as seen in relation to height of barn. Field between men and barn is part of the 27 acres not scalped.



Removal of topsoil uncovered huge boulders and loose stones that had broken from the limestone ledge.

restored, the new grade in the fields will be in the same direction as originally, but will be much easier. Soil scientists are much interested in what will happen if farming operations are resumed there. Among questions for which they want answers are:

1. What is the cost of removing and restoring the topsoil, and what is the cost of removing the subsoil and leveling the ground before the topsoil is restored?
2. What changes have taken place in the organic life of the topsoil while it has been in the large piles, under varying conditions of wind and weather, including freezing, and how will these changes affect its productive qualities?
3. What effect will restoration of the thin layer of topsoil on the limestone ledge, or over the considerably reduced layer of subsoil, have on the moisture capacity of the fields?
4. What limitations, if any, will there be in use of the restored fields for crop-production purposes?
5. What new drainage problems will have been created?

Soil scientists say some soil may be improved by removal of unfavorable subsoil conditions, but they doubt that this will be accomplished in this instance. They are much interested in the project because of the possibilities it offers for obtaining much-needed information on problems surrounding land-leveling operations in the Northeast. These have been undertaken in a small way, and are being considered for more extensive work.

Soil scientists point out that the coming era of larger and more powerful earth-moving machines, fed with cheaper fuel—atomic power, for example—may ease the way for widespread and beneficial earth leveling. They are thinking of making new farm lands in areas where the topography is not

presently suited for agricultural operations, and where heavy equipment now available for farm work cannot be fully used until land is leveled.

They are giving much thought to the possibilities of lifting topsoil, leveling subsoil, and restoring topsoil, in relation to possibilities of leaving topsoil where it is and covering it with soil materials obtained in leveling operations elsewhere. The Lancaster project, if it develops agriculturally, may help find some of the answers to a problem that is becoming more and more acute as areas in agricultural use steadily decrease, while demand for more and more agricultural production to feed more and more people constantly expands.

**PASTURE CHAMPIONS.**—Three cooperators in the Berkshire (Mass.) Soil Conservation District won the highest State honors and one of them became the All-New England champion in the 1950 New England Green Pasture Contest.

R. Walter Hurlburt of Ashley Falls was first-place winner in Massachusetts as well as in the six States. Other winners were H. George Wilde of Lee and Alessio Brothers of Pittsfield. All operate under a flexible grassland-management system and each has a roughage-improvement program. All seeding mixtures and fertilizing are based on soil information obtained from the SCS land-use capability map and recommendations of the Extension Service and experiment station. They differ in their pasture programs. At Hurlburt's Hurlwood farm and the Alessio's Brattle Brook farm, fields are divided into small grazing units, 2 to 5 acres carrying 8 to 10 cows per acre. At Wilde's High Lawn farm the grass is cut and taken to the barn for immediate feeding to 170 milkers. He uses 20 acres of pasture for exercising the herd.



Registered Holsteins in mixture of Ladino clover and Reid's canarygrass seeded August '49. Before Hurlburt started conservation farming, this land was considered too wet for use.

# FOUR BUSINESSMEN SUPPLY INCENTIVE

By JOHN O. SIMPSON



Foresighted men of business: Left to right—R. R. Harvey, C. M. Caraway, Jr., Harold Williams, and N. T. Haskins.

**F**OUR De Leon, Tex. businessmen decided they wanted to do something for soil conservation in their part of the country. The pattern was set by N. T. Haskins, president of the De Leon Peanut Co.

"I'd like to have a hand in helping put back into the soil what I've helped take away," Haskins thought to himself. He went to the telephone. He talked with three other businessmen. Fifteen minutes later \$1,000 had been donated for a soil conservation awards program. The board of supervisors of the Upper Leon Soil Conservation District gladly accepted the help.

NOTE—The author is work unit conservationist, Soil Conservation Service, De Leon, Tex.

Soil Conservation Service employees were asked to prepare score sheets and details for selecting the best conservation farmer in the district.

Haskins has lived in De Leon 35 years. He served as mayor 4 years. Under his administration De Leon began to take its place as a progressive west-Texas town.

R. R. Harvey, a leader in the conservation movement and an outstanding banker and church worker, is another backer of the program. He has lived in De Leon 52 years. He has been with the F. & M. National Bank for 45 years, is now its president.

Harold Williams has always been ready to help when his town and community needed assistance.



He is manager of Higginbotham Brothers & Co. He is sold on the value of soil conservation and was favorable to the awards idea from the start.

C. M. Caraway, Jr., grew up on Golden Oak farm. He was graduated in 1936 from Texas A. & M. College, where he studied animal husbandry. He became manager of the Golden Oak Milling Co. C. M., Jr., "inherited" conservation. His father, long a conservationist, is chairman of the Texas State Soil Conservation Board. Young Caraway was the fourth businessman of the contest group.

This quartet makes a real team.

The best conservation farmer in the district will be awarded \$500. The next best will receive \$250. Third place will get \$100. Four awards of \$25 each will be made. To the writer of the best high-school essay will go \$25, to the second best \$15, and to the third best \$10.

The awards will be presented in the spring of 1951 for 1950 conservation achievements.

The program was discussed by 30 leading farmers. They liked the idea. Here are some of the things the backers hope the project to accomplish: Stimulate conservation practices, sell conservation to those visiting the winning farms, formulate a score sheet that will be useful as a guide in the future, give the non-farmer a part in conservation, and inspire the entire district to greater accomplishments in the conservation of soil and water resources.

## FOWLER OF PENNSYLVANIA

(Continued from page 181)

where he operated for 22 years. In 1930 he sold 130 acres. Four years later he bought his present farm, joining the acreage retained from the Schifert farm. Fowler has 100 acres of contour farming, 80 acres of strip cropping, 4,000 feet of sod waterways, 1,000 feet of stream-channel improvement, 5 acres of new pasture seeding, and 15 acres of pasture management. He has removed fence rows and other obstructions, and established contour cultivation and strip cropping.

Fowler grows hybrid seed corn, raises hothouse lambs, and operates an alfalfa dehydrating plant. Recently he started raising guineas for restaurant trade.

In an area program Fowler has given leadership to a movement to establish conservation operations on the 8,000-acre Swabia Creek watershed in which

he lives. It is a long-time, slow-moving program that may get needed impetus from the currently mounting emphasis on dwindling water supplies and waste through flood ravages.

In recognition of his work achievements with hybrid seed corn, he was elected vice president of the Pennsylvania Cooperative Seed Growers Association. When the Macungie Grange was organized 36 years ago he became the first master, and continues to be one of its most active members. He is president and a member of the executive board of the Production Credit Association of Allentown, which makes short-term loans to farmers in five counties.

Fowler has written and distributed several treatises on general agricultural subjects and numerous papers on agricultural economics.

Mrs. Fowler was Jessie M. Metcalf of Mercersburg, Pa. Their son, George, is employed in Powder Valley but is toying with the idea of returning to the home farm to carry on the conservation farming started by his father.

The "Page One" award came as recognition of 40 full and fruitful years of farming—"recognition to those who make sacrifices over and above the daily routine of life; significant because it is presented by a group of appraisers within the community, who probably have the best opportunity of any group to study the greatest majority of those whose service has been outstanding . . . who are placed in nomination with dozens of others, and then balloted on by the awards committee many times until a decision is reached."

**LOOKING DOWN ON THEIR OWN.**—When Watson A. Luper, soil conservationist with the Jefferson County (Pa.) Soil Conservation District, addressed 35 vo-ag pupils and their teacher, William Meehlin, at the Punxsutawney High School, he suggested that they study conservation farming from the air. "It is the best way to see erosion by water, understand water patterns and controls, and observe how strip cropping hugs contours of the land. There's a lot to be learned just from seeing your own farm lay-out and the lay-out of other farms from the air," Luper said.

As a result, all pupils and the teacher took a flying trip at their own expense. An understanding pilot at the airport took them up in groups of five or six, at reduced rates, just when crop and field conditions were best for aerial studies. They flew over a 10-mile radius covering all of their home farms and many others.

# REVIEWS

**FORAGE AND PASTURE CROPS.** By W. A. Wheeler. 752 pp. Illustrated. 1950. Toronto, New York, London: D. Van Nostrand Co., Inc. \$8.

This book is primarily a reference on the grasses and legumes grown for forage in the United States. It gives a good, clear description of their culture, special characteristics, adaptation, climatic and soil adaptation, and their usage as forage and soil-conserving crops. It is conveniently divided into four parts, each treated very extensively and completely.

Part I covers the forage crops, grasses and legumes; soils and fertilizers for forage crops; inoculation of legumes; green manure and cover crops; establishment and management of pastures; hay making; silage; improvement of forage and pasture crops; and pests that affect these crops.

Part II deals with the legumes—the true clovers, with a special chapter given to sweetclovers; lespedezas; vetches; field peas; cowpeas; soybeans; velvet beans; and birdsfoot trefoil. The final chapter discusses southern legumes most commonly used for forage and soil conservation.

Part III treats the grasses as special crops, with individual chapters on timothy, orchardgrass, the bluegrasses, brome grasses, fescues, and other minor northern forage grasses. Other chapters cover wheatgrasses; buffalograss and gramas; Great Plains grasses; southern forage grasses; sorghums, Sudan grass and Johnsongrass; and the millets.

Part IV deals with seed tables and references. Data are presented in tables on seed, nomenclature, and adaptation of grasses and legumes, with references. One of the outstanding features of this book is in the way the references are given. There are references at the end of each chapter, references by States, contribution of those in USDA, a list of miscellaneous references, and a final reference list by authors. A very complete index is given showing utilization in bold-face type for the leading subject-matter headings, and italics for scientific names.

The book is so arranged that any subject or author can be found quickly, which increases its value as a reference. It, of course, is not one on original research by the author. It is a review of

research and experiences with individual grasses and legumes, a great deal of which was obtained by direct correspondence with the research men themselves, and much was obtained by personal contact with those doing the actual research work. The book has been reviewed thoroughly by leading authorities on grasses and legumes, which greatly enhances its authenticity. In fact, each phase of the book was reviewed by competent men during the process of its writing.

I know of no one better qualified than Wheeler for the preparation and writing of such a book. He was an agronomist and seed-marketing specialist and has devoted more than a half century to seeds and forage crops.

Under the title of botanist at South Dakota State College, about 1903, he was one of the early plant breeders and forage-crop-improvement specialists. It was there that he developed the first extensive native-grass nursery in the United States with tests and space planting of western wheatgrass, buffalograss, the bluestems, and other native grasses. In 1904 he established the first plantings of alfalfa and brome to show the value of a legume in preventing sod binding and increasing yields and palatability. Wheeler has 9 years of commercial experience as secretary-manager of the Dakota Improved Seed Company. He came with the Department as specialist in charge of seed marketing, in 1916. He had a hand in formulating the Federal Seed Act of 1939, and in developing the Federal Reporting Service. He was chairman of the Department's interbureau committee on research concerning hay and other forage crops from 1934 to 1940. He was one of the earliest departmental authorities on the use of radio for market reports and agricultural broadcasting. He served on the Seed Supply Committee during World War I, and after the war he was sent to Europe by Secretary Houston to investigate and report on seed conditions in Europe. At the outbreak of World War II, he was drafted to take charge of Seed Procurement and Supply program of the United States. Under this assignment he developed the largest program ever undertaken for vegetable-seed production. Procurement of field seed for Lend Lease and UNRRA amounted to a total of around \$100,000,000.

At the age of 70, Wheeler still had a forward outlook on agriculture and his enthusiasm and energy kept him from retirement, in the usual sense. With this broad background in seed and for-

age-crop production, he undertook, in cooperation with the Field Institute of North America, a 4-year job of compiling the wealth of scattered information on seed and forage crops, a tremendous undertaking, both from the standpoint of work and cost. The author gives credit to the Field Seed Institute for its financial assistance which made his book possible. Credit is also given for technical assistance which he received.

Soil conservation can be achieved only through the full utilization of adapted grasses and legumes in American agriculture. The control of soil erosion must begin at the point where rain strikes the land, or where wind strikes unprotected land. Erosion control, therefore, is based upon adequate protection by vegetation. This book deals only with the herbaceous forms of vegetation which are of primary importance to our cultivated lands, pastures, and range lands. A true soil conservationist should, therefore, have a ready reference to the various grasses and legumes adapted to the United States if he is to understand fully and help apply these tools of soil and water conservation.

—GROVER F. BROWN.

**FORESTRY HANDBOOK FOR THE UPPER MISSISSIPPI REGION.** With a preface by Stanley S. Locke, Regional Forester, Soil Conservation Service. 101 pp. Illustrated. 1950. Washington, D. C.: Superintendent of Documents, Government Printing Office. 45 cents.

Handbooks of this type previously have been prepared for use within the Soil Conservation Service, but this—the Fifth Edition—is available to the public as a whole.

The information was assembled for the use of Service soil conservationists or farm planners, very few of whom have had formal forestry training. These men, as they develop with the farmer complete conservation farm plans, use this guide material in reaching the objective that "the farm woods should be handled in a manner similar to cropland and meadows." The handbook furnishes in a briefed, practical arrangement the information on planting, protection, management, harvesting, and marketing that applies to the farm woodlands of that area. A wide range of research and operational findings, together with the experiences of Service field men in working with farmers, were all used in developing this publication.

This handbook is not a textbook but a working tool designed primarily for use of farm planners in helping farmers know and use their woodlands. It includes a handy appendix and index, along with sketches and diagrams. Most chapters are supported by a reference list of source material. Many foresters, as well as farmers who aim to do their own woodland work, will find this a helpful guide and reference. Although prepared for the Lake States and Upper Mississippi Valley States, it has application to many forested regions of the northeast quarter of the United States.

—C. B. MANIFOLD.

## IRRIGATION

(Continued from page 175)

"We in the association made up our minds that we wanted an irrigation set-up that would succeed from the start. As a result of the help we got through the soil conservation district, we knew what land was suited for irrigation, the types of crops, and where the water should be delivered to the land before we began. Our first year's experience with irrigation makes us think we've licked the old bugaboo."

In licking it, they have also erected a landmark for all to see—the result of cooperation of a State with its people and aided by the soil conservation district and Soil Conservation Service.

"What does it mean?" Zent asked. "Well, I can tell you, from both sides of the fence—as a farmer and a businessman. For the farmers it means diversification, more and steadier income. More livestock growing and feeding. Some specialized seed crops. Wider variety of crops generally.

"But the farmer isn't the only one to benefit. It will mean more and better business for Hysham. The town is bound to grow. There will be demand for a larger variety of goods. Not like the past days, when the demand was limited. Or like the drought periods—we had two, you know; one in the 1920's as well as in the 1930's—when we had to write off thousands of dollars in uncollected amounts. Irrigated areas weren't hit by the drought.

"Yes. It means much to everyone in the community. So much, that we already have started work on a new, modern building in order to be ready to meet our share of the increased calls for new kinds of goods that have already begun."

## CROP INSURANCE IS CONSERVATION, TOO.

—The conservation idea has increasingly wide application on the American farm. For example, crop insurance to protect the farmer's investment in his annual production can contribute to a vigorous and healthy system of agriculture. A healthy and productive agricultural economy is an asset to a Nation entering a period of active defense or actual war. With such an economy, production can be expanded rapidly—the plant and facilities are available. In an agricultural economy that is not healthy and productive, much more reconstruction and delay is necessary before the needs of defense or war could be met adequately.

Farmers are said to need insurance protection of their annual investment more today than in previous years because a larger proportion of their costs are cash outlay. Mechanization and other advances in the technique of production have almost revolutionized the American farm business. This revolution involving the higher cash outlay is shown clearly by a recent study of farm records on 14 identical farms in New York over a period of 40 years, which indicates that cash expenses on these farms increased from 35 percent of cash receipts to 73 percent. This means that crop loss is more disastrous financially now than it was then. A crop loss that would reduce his income 30 percent below normal would now leave him no net income for the year, whereas, 40 years ago he would still have had considerable net income. This study also showed that these farmers 40 years ago could have lost the amount of their expenses for 12 years in succession before using up their entire capital, but now it takes only  $2\frac{1}{2}$  years.

This study shows the even greater need today than in the past for stabilizing factors in farm income. Crop insurance is an important stabilizing factor, just as is soil conservation. The physical protection of the farm pairs naturally with its economic protection.

## THEY HAVE A WAY WITH THE LAND

(Continued from page 179)

These bumper yields of pasture, hay, and grain crops provide enough feed for all the stock except summer grazing (which Kanagy rents) for the 25 heifers. It also provides protein supplement, and feed for the broilers.

How does he make the land yield so heavily? Here's one big reason in addition to right selection of land and plants for each particular job:

Jo and Ben Kanagy plow in a lot of fertilized manure. They use about 700 pounds of commercial fertilizer to each acre. They save a load of manure a day from the cows during winter and spread it

nearly every day. In the summer, the cows leave most of this fertilizer in the pastures. During the winter the 25 heifers provide a load of manure every other day. And each year barn accumulation amounts to about 45 loads. The annual crop of 18,000 broilers also supplies a large amount of rich fertilizer. And remember, each load of manure is reinforced with a half sack of phosphate.

This Virginia family has as neat and attractive a farm as you can find anywhere. Their equipment is strictly modern, carefully maintained, entirely mechanized.

Zeigler explained to me one of the family's secrets of good farming as we drove away from Kanagy's farm: "Everybody works *including* father. They are among the first to see, accept, and put into practice the fundamental methods of good farming. They are among the most cooperative farmers I have ever worked with since I graduated from Clemson in 1918."

## NOTES FROM THE DISTRICTS



**THREE POINTS OF VALUE.**—Albert Taylor, Kennebec County Soil Conservation District co-operator, near Sidney, Maine, gets a three-way return from irrigation in his 6-acre brome pasture. He prevents loss in milk production, reduces grain bills, and avoids feeding the next winter's hay in July and August.

He started irrigating in 1950 after he had won second honors in the county green-pasture contest. He pulls the water from the Kennebec River with a pump delivering 2 gallons a minute at 70-pound pressure. The pump, mounted on the front of a light tractor, takes its power from a pulley. Twelve sprinkler heads are supplied through aluminum pipe. They are set at 60-foot intervals, lap 40 feet, and cover an acre at a time. A  $2\frac{1}{2}$ -hour running produces the equivalent of an inch of rain. The main supply line is a 4-inch pipe with 3-inch laterals. There is a 35-foot rise from the river, the loss in pressure being about a half pound per foot—leaving plenty at the heads.

When he started irrigating, his clay soil was hard. After 3 days he found that he could thrust a 6-inch end wrench into the soil.



**GROWING INTEREST IN DISTRICTS.**—Growing interest in soil conservation districts was reflected by an attendance of 35 people at a recent meeting of the board of supervisors for the Tombigbee-Warrior district in Alabama. The supervisors invited each of the seven counties in the district to send representatives of business and professional groups to enable them to get a better understanding of what soil conservation districts are, how they are organized, and how they function. Visitors included bankers, farm-equipment dealers, seed dealers, merchants, ministers, school officials, and newspapermen.

Chairman Herman Roberts discussed the district program and gave a report of the progress of the district during the 11 years it has been organized. Some of the visitors who were asked to speak were Fuller Kimbrell, farm-equipment dealer, of Fayette; Buford Boone, publisher of the *Tuscaloosa News*; Ivan Hall, cashier of the Citizens Bank of Winfield; and Dr. R. H. Tidwell of the University of Alabama. Congressman Edward DeGraffenreid was a featured speaker at a luncheon following the business meeting.

**STORM HURTS, THEN HELPS.**—When a rain-storm, calculated to be of 50- to 100-year intensity, did considerable damage to farm land in Maine's Aroostook potato country, it was noticed that there was considerably less damage on farms where conservation practices have been installed, than on farms without these practices. As a result, many requests for SCS technical assistance came from farmers.

**LET THE CHIPS FALL!**—The State Soil Conservation Committee in Maryland has purchased a wood chipper that is being loaned to the 23 soil conservation districts for use of cooperators in improving their wood lots and restoring organic matter to their soil.

**MANY HELPED.**—When the South Deerfield (Mass.) Water District undertook the improvement of its reservoir watershed by planting 32,000 trees obtained through cooperation with the Franklin County Soil Conservation District, it issued an emergency call to townspeople for help. Twenty-five men responded. Deerfield High School agricultural pupils gave them a lift by planting 10,000 trees. The water district commissioners served sandwiches and coffee.

**\$800 SAVED.**—Annually each spring, the road superintendent in Worthington, Mass., has found it necessary to do about \$800 worth of work in clearing away damage done by runoff from farm lands. Establishment of conservation farming practices, started last fall, has prevented road damage this year, even though it has been an unusually wet season, says Eben L. Shaw, road superintendent.



Gordon Davidson, president, holds charter membership certificate at organization meeting of Terrace Club.

**TERRACE CLUB.**—The first Terrace Club in Iowa was organized last fall at Grundy Center by 21 farmers of the Grundy County Soil Conservation District.

To be eligible a farmer must have terraces on his farm. The 21 farmers attending the organization meeting were presented special charter certificates. New members will be given regular certificates.

The purpose of the organization is to provide a means for farmers to meet and discuss their mutual terracing problems. The building of terraces with farm equipment is a relatively simple procedure.

Many problems arise in farming with terraces, however, such as plowing, planting, cultivating, harvesting corn, combining small grain, and hay making. Members believe by discussing their own individual problems they can help each other. They also plan occasionally to invite outside experts to discuss various technical problems. Moving pictures also will be used.

The Terrace Club will sponsor such events as a district-wide terracing contest.

Gordon Davidson is president; Luther Brindle, vice president; Lester Rittger, secretary-treasurer. The group plans to meet at least four times a year.

—H. HOWARD OAK.

**SPEECH PRIZE.**—The Dow Chemical Company will award a \$500 cash prize to the speaker representing the average-to-small farmers and ranchers of America at the 1951 NASCD convention at Oklahoma City, February 20, 21, and 22.

The subject of the talk will be, "What My Soil Conservation District Has Done For Me."



#### TEACHING CONSERVATION BY CAMERA.—

This is a scene during the filming of "Willing Acres," a new soil conservation motion picture by the Venard Organization, of Peoria, Ill. Keystone Steel and Wire Company are the producers. The film is dedicated to "America's farmers who would use their acres wisely." It includes scenes from farms in Georgia, South Dakota, Texas, Indiana, and Kentucky.

Although emphasis is on the conversion-to-grass angle of soil conservation, the film also brings out the fact that crops such as cotton, corn, and tobacco may also be produced profitably by the use of soil conservation practices and wise land use.

The movie tells the story of Fred Saunders, Centerville, USA, who leaves the old home place, where he lives with a married brother, because it will no longer support two families. He goes to work for a company that manufactures farm machinery and travels all over the country checking up on the company's machinery. However, Fred remains a farmer at heart and when he gets home on vacation he buys the old Gannon place, a run-down, badly eroded farm near Centerville.

The concluding scenes show Fred going over the farm with the SCS technician assigned to the local soil conservation district, the county agent, and Jim Hawkins, banker, who lends Fred the money to buy the farm. Fred marries Mary Westcott, the sweetheart whom he had never felt financially able to wed.

This is the second soil conservation film to be produced by Venard Organization, which several years ago made "The People-Together," a motion picture sponsored by Sears Roebuck.

**SEVEN YEARS OF PROGRESS.**—It was a poor place that O. E. Brower owned, near Flowell, Utah, with a remodeled shack as a home, but he was rich in ideas.

Of the 80-acre farm, not more than 20 acres were productive. The farm was in need of new fences, land leveling, more water, an overnight pond for storing water, better pasture, more fertilizer, and most everything that goes into making a farm profitable. Its light loam soil sifted through the cracks of his shack when a breeze stirred.

Although the buildings needed repair, Brower, with the help of his family, was a potentially good poultry manager. The Soil Conservation Service representative working with the Millard Soil Conservation District made a recommendation for a loan to buy 3,000 turkeys. The fowls could pasture on the marginal land and would be an immediate means of increasing the farm income.

The Farmers Home Administration made the loan. The turkey enterprise proved successful, starting the family off on a real conservation program.

The next step was the development of water from three inactive wells. They were at the highest point

of elevation. They had flowed in the past, but due to the lowering water table, the water now stood 8 feet below the surface. The SCS dragline was used to dig a trench 15 feet deep at the wells and at 600 feet west came out at ground level. A concrete pipeline was installed in the trench and connected to the wells. The wells now supply additional water to the farm.

Two overnight ponds were constructed and the artesian wells were piped to the ponds, giving the farm an adequate supply of water for the irrigated pasture recommended in the farm plan.

In the past 7 years, Brower has practiced conservation and used better farming methods. Visiting the farm today, one will find a modern Grade A dairy, a herd of 40 high-producing milk cows, a new modern home, a new automobile, and irrigated pasture.

**LAST LINK IN CHAIN.**—The two hundredth conservation plan has just been approved by the supervisors of the Dakota County (Minn.) Soil Conservation District. The plan covers the 200 acres owned by Louis Bruder in Rosemount and Inver Grove Townships, about 8 miles south of South St. Paul.

The Bruder plan, in addition to being the two hundredth in the district, is also important because it adds the last link in a 2½-mile chain of conservation farming between two farms first planned in 1945.

Farm plan number 7 was made for the farm owned by the late Alex Maltley. His farm is located south of South St. Paul and extends down to the Mississippi River. Maltley's son Harold has been operating the farm and has done an excellent job of conservation.

Farm plan number 13 was worked out with Peter Transberg during the winter of 1945. The Transberg farm is located in Rosemount Township, north of the Gopher Ordinance Works.

The neighbors of Alex and Peter watched the results, and after harvest in 1945 Arthur Letz, Alex's neighbor, had his farm planned. In 1946 Winifred Horrisberger, a neighbor of Peter, had his farm planned. Conservation farming in the two neighborhoods spread gradually until finally they were joined with the Bruder plan. There are 13 farms in the group, with a total of 2,093 acres. Big gullies have been closed and seeded. Steep land has been taken out of cultivation and seeded for pasture. Pastures were improved and crop rotations followed. Trees were planted and terraces were built. In all, 329 acres were planned for contour cultivation. To date, 293 acres have been farmed that way. A total of 361 acres were planned for contour strips and 292 acres have been established.

Peter Transberg was named the outstanding soil conservation farmer in the Dakota County Soil

Conservation District in 1947 by the district supervisors. This year the supervisors selected M. F. Swanson, Peter's next-door neighbor, as one of the three best conservation farmers in the district.

—LEE K. MOORE.

**VIRTUALLY COMPLETE.**—Addition of about 156,600 acres in Randolph County, W. Va., to Tygart's Valley Soil Conservation District has brought all of West Virginia, except two magisterial districts in Randolph County, into district organizations.

**SOUNDS SENSIBLE.**—The Keokuk County (Iowa) Soil Conservation District governing body has decided to invite new cooperators to attend the commissioners meeting when the cooperators' farm plans come up for approval. Many districts are following this procedure and the practice is becoming widespread in Iowa.



**GUARDIANS OF THE FIELDS.**—Wilbur Siercks near Landa, N. Dak., a cooperator with the Turtle Mountain Soil Conservation District, planted his ½-mile windbreak to help protect his land and crops from wind damage, but trees have so many other values that the original purpose seems incidental.

"For example," he said, "during the 1948-49 winter, when this country was snow-bound for so long, I could travel a half mile east and a half mile west, but most of the time, no farther.

"A lot of money was spent trying to keep roads open that winter, but without success. But not a nickel was spent on this stretch of road protected by the trees and it was open all of the time.

"The windbreak keeps the farmyard and feed lots open, too. Besides that, it makes things more comfortable in the house and in the yard when a cold winter wind is blowing.

"Then there are all those plums, sand cherries, and chokecherries that the windbreak produces—more than enough for both our family and the birds. We have them as fresh fruit and in jams and jellies.

"In summer they attract a lot of birds. Their chirping and singing makes things a lot more pleasant, and many of them live principally on the kind of insects we don't want around."

# A Year of Responsibility and Opportunity

*The following message was sent to all employees of the Soil Conservation Service:*

Just a few years ago we all celebrated the victorious ending of a war. All of us hoped that it might be the last fighting between nations. We fought to preserve our liberty against the ambitions of men in other nations who wanted to impose absolute dictatorship over our thoughts, our actions, and our aspirations. We fought, as thousands of Americans had fought before—since Colonial days—to preserve our right to govern ourselves, as the majority of us saw fit, without coercion, reprisals, or acts of violence to ourselves and our families.

Now our country is faced with another emergency. An alien system—one that is completely opposed to self-government and the freedom of the individual—is in action against us. You know what is happening in Korea and at the meetings of the United Nations. You know that General Eisenhower has had to return to uniform. You have heard or read what the President and our leaders in Congress have said about the gravity of the present situation.

Once again we are confronted with the imperative need to defend ourselves, our liberty, and everything that Americans hold dear.

There is no time for debate—*American men are in action now*, as they were yesterday and will be tomorrow.

No one knows how long the present emergency may last or what proportions it may reach. But we do know that we must prepare ourselves for any development. To meet the increased requirements of ourselves and our allies we are going to need greater production of food, fiber, vegetable fats and oils, and wood products—all of which come from the soil. The surest way of increasing production and holding it at the necessary high levels, year after year for as long as may be required, is by sound conservation farming over wide areas. Along with the cooperating farmers in soil conservation districts all over the country, we in the Soil Conservation Service demonstrated the value of conservation farming during the last war. Wisely planned and carefully applied systems of conservation farming not only resulted in large increases in production but protected the land at the same time. Farmers and ranchers were able to get larger yields with less labor, equipment, and fertilizer.

In war, as in peace, the land continues as our most vital and basic resource. Everything we do, all we share, and whatever we amount to as a great and vigorous people, begins with and rests on the sustained productivity of our agricultural lands. Any undermining of this base undermines and weakens our Nation and all of its people. So during the year ahead—1951—you have a greater responsibility and a greater opportunity than ever before. Soil conservation work must be speeded up. Once again it becomes an indispensable part of the basic defense operations of the Nation. And you and your job, important in peace time, now become doubly important to the Nation as it begins mobilizing for the emergency with every resource we possess. What you are able to accomplish this year will not only bring results this year, but next year, and on into 1955 and 1960 when the need may be even greater.

We in the Soil Conservation Service have an unusual and indispensable service to give to the country. We have the knowledge and the experience necessary to work with farmers and ranchers on the land to protect it, use it wisely, and make it yield more—year after year. In our work with soil conservation districts we are also helping to build and strengthen the American system of self-government at the very sustaining foundation.

Our land, our liberty, our self-respect, and our system of self-government—these are what we have fought for in the past and are determined to protect in the future. Every man in the Soil Conservation Service can help and help best by studying his job, sticking to it, and putting even more of his enthusiasm and determination into it than ever before. For my part, I will be working with you and for you to the best of my ability all the way.

—H. H. BENNETT

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